## Reply

We would like to thank Drs Sing, Harold, Jacobs, and Heniford for their comments, and we admire their results with the use of carbon dioxide as a contrast agent in the bedside placement of IVC filters. We understand and concur with the issues raised by this group regarding the cost of the intravascular ultrasound (IVUS) probe and the efficacy of carbon dioxide venography in defining IVC anatomy, although some points should be clarified.

At our institution, intensive care unit beds are not fluoroscopy-ready as is the case in the Carolinas Medical Center series.[1] Furthermore, the availability of fluoroscopic C-arm machines is limited and would require coordinating the procedure with additional ancillary staff. These two points preclude our use of the carbon dioxide contrast technique but do not downplay its value as a valid, accurate, and safe alternative.

In summary, bedside vena cava filter placement using IVUS is a useful option for ICU patients. Other alternative methods for bedside IVC filter placement exist, including transabdominal ultrasound[2] and carbon dioxide venography, but the particular method used should be guided by the resources available at an individual practitioner's institution.

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## Regarding "Eversion technique increases the risk for post–carotid endarterectomy hypertension"

We read with great interest the excellent article by Mehta et al[1] regarding the significant risk of postoperative hypertension after carotid eversion endarterectomy (CEE). However, on analyzing the data emerging from a recently-published randomized trial,[2] we came to different conclusions.

Our study[2] prospectively evaluated 86 patients who underwent sequential, bilateral carotid endarterectomy (CEA). Every patient had a CEE randomly performed on one side (group I) and a traditional CEA with patching closure on the other (group II); each patient thus served as his own internal control. All CEAs were performed by the same surgeon under general anesthesia, with continuous electroencephalic monitoring for selective shunting. The CEE technique employed has been described elsewhere[2,3] and is similar to Mehta et al's technique[1]; the carotid sinus nerve was always severed. Patients with a known history of systemic hypertension (HTN) were comparable in the two groups and were treated with one or more antihypertensive drugs until the day of surgery. HTN was defined as either a >30% increase in the average preoperative systolic pressure or a systolic pressure >180 mm Hg. There were no cases of uncontrolled preoperative HTN. Lidocaine was never injected at the carotid sinus to blunt any bradycardia and hypotension developing during carotid bifurcation manipulation. There was no statistically significant difference in mean peak systolic pressure in postoperative controls when groups I and II were compared. Intravenous vasodilators were needed to control excessively high systolic pressure levels in 11 patients (13%) in group I and 5 (6%) in group II (two-tailed, $P = .18$); among these cases, 7 patients in group I and 3 in group II had a history of preoperative HTN (two-tailed, $P = .21$). Of the 11 patients in group I needing intravenous vasodilators, 7 underwent CEE as a first surgical procedure and 4 as a second. Three patients had high systemic blood pressure values requiring intravenous vasodilators after both surgical procedures. Even excluding these three patients, the difference between the two groups was not significant (two-tailed, $P = .09$). Four patients (4.6%) in group I and 6 (7%) in group II needed intravenous medication to correct a hemodynamic instability at the time of induction or at the start of CEA (two-tailed, $P = .53$); however, none of them had HTN in the immediate postoperative period. Only three patients (3.5%) in group II and none (0%) in group I had postoperative HTN requiring medication. Thus, overall, 11 patients (13%) in group I and 8 (9.5%) in group II had postoperative blood pressure instability of some kind (two-tailed, $P = .62$).

Judging from the findings emerging from our prospective randomized study, we might conclude that the risk of HTN in the immediate postoperative period is comparable in patients undergoing CEE and those undergoing traditional CEA, and that any systemic blood pressure instability in the immediate postoperative period is independent of the surgical technique used.

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## Reply

We would like to thank Dr Ballotta and associates for their interest in our work regarding the increased risk of postoperative hypertension following eversion carotid endarterectomy.

Although prospective randomized trials have analyzed the incidence of postoperative recurrent stenosis, occlusion, stroke, and death following either eversion or standard carotid endarterectomy techniques, the difference in the incidence and severity of postoperative hypertension following carotid endarterectomy by the two techniques had not been compared prior to our evaluation of this subject matter. Dr Ballotta and associates have published two excellent articles on prospective evaluation of techniques of carotid endarterectomy, eversion versus standard patch closure.[1,2] On evaluating 86 patients with sequential, bilateral carotid endarterectomies via eversion and standard techniques, they have come to a conclusion that is quite different than what is supported by our data. They have not noticed a statistically significant difference in the incidence of post–carotid endarterectomy hypertension